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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,377	04/27/2006	Peter Hubert Windmuller	4662-129	4401
23117 7590 11/09/2009 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
LU, C CAIXIA				
ART UNIT		PAPER NUMBER		
1796				
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11/09/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/563,377

Applicant(s)

WINDMULLER ET AL.

Examiner

Caixia Lu

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 8/10/09

DETAILED ACTION

Election/Restrictions

1. In the previous Office Action mailed May 8, 2009, Applicants are reminded that the original elected species of η^5 -(cyclopentadienyl) 1,3-bis(2,6-dimethylphenyl)-iminoimidazoline titanium dimethyl on January 11, 2007 must be cancelled since the claimed process defined by the previous elected species has been finally rejected, and Applicants have expressed willingness to cancel the species in the Remarks filed August 10, 2009. However, species aii) is still remaining in instant claim 11. Deletion of species aii) from claim 11 is again requested.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 2-4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoang et al. (US 6,583,082) in view of Gillis et al. (WO 97/38019) for the same rationale as set forth in the previous Nonfinal Office Action mailed on May 8, 2009 and the content of the rejection is disclosed Nonfinal Office Action mailed on November 1, 2007.

Response to Arguments

4. Applicant's arguments filed on August 10, 2009 have been fully considered but they are not persuasive and the Declaration filed on August 10, 2009 is considered. However, the Declaration is improper because 1.132 Affidavits or Declarations is solely for representing evidence rather than inventor's opinions.

Applicants argue that Gilles teaches against the use of aluminoxane as cocatalyst for the metallocene procatalyst of $(\text{Cp}^1\text{R}^1_{\text{m}})\text{R}^3_{\text{n}}\text{Y}_t\text{MX}_8$, thus, applicants conclude that there is no motivation to combine the teaching of Hoang and Gills to arrive at Applicants' claimed invention. Applicants has correctly recognized that in page 12, line 23 and page 13, lines 16-19, Gilles discloses $(\text{Cp}^1\text{R}^1_{\text{m}})\text{R}^3_{\text{n}}\text{Y}_t\text{MX}_8$ to be activated only by the cation-generating cocatalyst such as borate rather alumoxane. However, Gilles' metallocene complex, $(\text{Cp}^1\text{R}^1_{\text{m}})\text{R}^3_{\text{n}}\text{Y}_t\text{MX}_8$, is unlikely to include Hoang's phosphinimine ligand containing metallocene because such is not taught or suggested in Gilles. On the other hand, Hoang has expressly disclosed alumoxane as the cocatalyst. As stated in the previous Office Action mailed May 8, 2009, "it still is the examiner's position that Applicants' arguments is irrelevant since Gillis' teaching is cited here for its general teaching of preparation of ethylene/ α -olefin/vinyl norbornene terpolymer in the presence of a metallocene catalyst being well established in industry rather than the teaching of the catalyst composition. Therefore, it is obvious to employ any metallocene catalyst such as Hoang's catalyst to attempt the preparation ethylene/ α -olefin/vinyl norbornene terpolymer in search for a catalyst composition for providing the terpolymer with desired molecular weights and compositions unless there is showing of criticality and unexpected. To overcome the rejection under 35 U.S.C. 103(a), Applicants need to show why it is not obvious to conduct ethylene/ α -olefin/vinyl norbornene polymerization in the presence of Hoang's catalyst composition by providing unexpected results over Hoang's process."

Again, as stated in the previous Office Action, Applicants' arguments regarding Example 4 and Comparative Example C are irrelevant because those arguments fail to address any of the issues raised in the rejections of the previous Office Action. First of all, Comparative Example C does not represent Hoang's metallocene catalyst since Hoang's the cocatalyst of Hoang's metallocene catalyst is an alumoxane rather than the aluminoxane and borate mixture of Comparative Example C and Hoang's metallocene catalysts used in the working examples are different from Applicants' Cat 1 or Cat 2 as shown in Table 1. Secondly, Example 4 and Comparative Example C are not comparable in that the amount VNB used in Example 4 of 41.7 mmol/L is about 11 times more than the amount VNB of 3.8 mmol/L of Comparative Example C, meaningful comparison can not be made. Thirdly, Example 8 and Comparative Example C are not conducted in "similar" conditions as asserted by Applicants since both the cocatalysts and the amounts of VNB used in both examples are different, about 30% more of VNB is used in Comparative Example C compared to that of Example 8, therefore, higher branches are expected in Comparative Example C.

Applicants further argue that the claimed invention was to build a high amount of VNB in the terpolymer for effective curing with peroxide which is different from Gillis--the VNB in the polymer is to increase the level of branching. Since the amount of VNB in the polymer limitation is not in the claims, those arguments are not relevant towards the claimed limitations.

Most importantly, even if there is showing of criticality and unexpected results in applicants' comparisons, the showing is still not commensurate with the scope of the

instant claims. While Applicants' exemplified metallocene complex with a polar perfluorophenyl substituent on the cyclopentadienyl ring meets the metallocene complex limitation of the instant claims, the metallocene complex does not represent the whole scope of various metallocene complexes of the instant claims. That is, those "unexpected" results listed in Tables 2 and 3 might only be obtainable with Cat 1 or Cat 2, those results are not applicable to the metallocene complexes where Cp is not substituted with perfluorophenyl.

To rebut a prima facie case of obviousness, applicant must compare his claimed invention to the closest prior art. In re Merchant, 575 F. 2d 865, 869, 197 USPQ 785, 788 (CCPA 1978). In view of the foregoing, applicant's showing is not probative of any patentability, the rejections are deemed proper and thus maintained.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached on 9:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Caixia Lu/
Primary Examiner
Art Unit 1796